

Remarks

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Substance of Interview

Applicants' attorney confirms the telephone discussion with the Examiner on August 24, 2009, during which the Examiner confirmed that the Higuchi et al. reference relied on in rejecting the claims is JP 63-258994 (not JP 63-258944 as referred to in the Interview Summary mailed August 25, 2009). In addition, the Examiner stated that the exact language quoted from claim 1 on pages 2-3 of the Office Action is not set forth in the Higuchi et al. reference (referring to the translation of this reference). However, he stated that the language in claim 1 is inherent in the reference disclosure, especially Embodiment 1 on page 10 of the reference translation. He argued that the "middle-melting component" and the "low-melting component" of palm oil in Embodiment 1 correspond to the G2U and GU2 components, respectively, in claim 1 of the present application. Thus, the Examiner took the position that the first paragraph in Embodiment 1 corresponds to the "fractionating" step in claim 1, the next paragraph in Embodiment 1 corresponds to the "mixing" and "separating" steps in claim 1, and the language in the "wherein" clause in the last four lines of claim 1 is inherent in the reference, since Embodiment 1 uses palm oil (one of the oils in claim 5 of the present application).

Amendments

Claim 1 has been amended to incorporate subject matter from claims 4, 11 and 12, as a result of which claims 4 and 12 have been cancelled, and claim 11 has been amended to delete reference to "a cake of". The dependency of claims 5 and 7 has been changed, and new claim 13 has been cancelled since its subject matter is now recited in amended claim 1.

Patentability Arguments

The patentability of the presently claimed invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1-7, 9, 11 and 13-14 under 35 U.S.C. §102(b) or 35 U.S.C. §103(a) based on Higuchi et al. (JP 63-258994) is respectfully traversed.

The difference between the method of the present invention and the method of Higuchi et al. is summarized in the attached Appendix.

Thus, the Higuchi et al. reference is directed to a fractionation method of palm oil, wherein a **mixed fraction** of a low-melting ingredient and a medium-melting ingredient is crystallized and then the **low melting fraction** is further added to the mixed fraction, followed by press-filtering.

The present invention is clearly distinguished from the method of Higuchi et al. in the following 1) and 2).

1) After fractionation, the **crystal fraction (AF)** is mixed with the fat or oil (B) in the present invention, while the mixed fraction is fractionated in Higuchi et al. (see Appendix).

Please note that the objective of the present invention is to further concentrate the G2U component in the crystal fraction (AF) where the G2U component has been concentrated.

2) Fat or oil (B) whose GU2 (liquid component) concentration is lower than that of the liquid fraction (AL) is mixed in the present invention, while a low-melting fraction is mixed in Higuchi et al. (see Appendix).

According to the present invention, fat or oil (B) whose GU2 concentration is lower than that of the liquid fraction (AL), **not** the liquid fraction (AL), is mixed with the crystal fraction (AF) to reduce the GU2 remaining in the fraction (AF), thereby making it possible to highly concentrate the G2U component.

In addition, in Higuchi et al., the POP component is concentrated by subjecting palm olein to crystallization, press-filtering the resultant crystal fraction, further adding palm olein to the crystal fraction and then press-filtering the mixture. In case of palm olein, since the crystal fraction obtained after the first press-filtration has a low melting point and is soft, the crystal fraction can be readily mixed with the additional palm olein and can be readily press-filtered.

On the other hand, for example, in case of the interesterified oil obtained by selectively introducing a saturated fatty acid to 1,3-positions of fat or oil or isomerized hydrogenated oil used in the present invention, a crystal fraction obtained after crystallization and fractionation is solidified (as illustrated in Example 1 of the present specification).

According to a conventional dry fractionation method, a liquid component (GU2) remaining in such a solidified crystal fraction is hardly reduced and there is no way to reduce the liquid component. Nevertheless, according to the present invention, unexpectedly, a cake of the crystal fraction (AF) is crushed and mixed with the fat or oil (B) having a lower concentration of GU2, thereby making it possible to further reduce the liquid component (GU2) remaining in the solidified crystal fraction.

The whole objective of the method of Higuchi et al. is directed to fractionation of palm oil, in particular, fractionation of palm medium-melting ingredient and palm low-melting ingredient. Therefore, the method of Higuchi et al. is hardly applicable to a fraction of fat or oil where a crystal fraction is solidified. Accordingly, it is clear that Higuchi et al. do not teach or suggest the improved method of the present invention.

The rejection of claims 8 and 10 under 35 U.S.C. §103(a) as being unpatentable over Higuchi et al. in view of JP 2003-134998 is respectfully traversed.

The comments set forth above concerning the Higuchi et al. reference are equally applicable to this rejection.

JP 2003-134998 relates to an oil-in-water emulsion for kneading into puddings, comprising fat or oil having a rich SUS triglyceride and a laurin fat. This reference only exemplifies interesterified oil as an oil having a rich SUS triglyceride. The reference neither describes an ingredient of the interesterified oil nor teaches or suggests applying the interesterified oil to oil fractionation. Therefore, the invention of claims 8 and 10 is not obvious from Higuchi et al. and JP2003-134998.

The rejection of claim 12 under 35 U.S.C. §103(a) as being unpatentable over Higuchi et al. in view of JP 2-14290 is respectfully traversed.

The comments set forth above concerning the Higuchi et al. reference are equally applicable to this rejection.

In JP 2-14290, crushing is designed to easily fractionate into a liquid fraction and a solid fraction in the step of press-filtering after crystallization. In the present invention, crushing is designed to highly concentrate the G2U component in the crystal fraction (AF) through the steps of crushing the crystal fraction and mixing fat or oil (B) and the crystal fraction, but is not designed to make fractionation easy. Therefore, the objective of the present inventions is

different from that of JP2-14290, and the present invention is not obvious from Higuchi et al. and JP2-14290.

Conclusion

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied references.

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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Appendix

